

KOVACS, Istvan; TASNADI, Emil; KESERU, Janos

Calling for the registration for the innovators' and inventors' show at the 1962 National Agricultural Exhibition. Ujit lap 14 no.3:8 F '62.

1. Mezogazdasagi es Erdeszeti Dolgozok Szakszervezetének fotitkara (for Kovacs). 2. Orszagos Talalmanyi Hivatal elnoke, es "Ujitok Lapja" foszerkesztoje (for Tasnadi) 3. Foldmuvelesugyi miniszterhelyettes (for Keseru).

KOVACS, Istvan

Agriculture has become part of socialism. Hungarian TV
no.6:11-13 Je '61.

1. General Secretary of the Agricultural Workers Union.

KOVACS, Istvan

"Absorption spectra in the ultraviolet and visible region"
edited by L.Lang. Reviewed by Istvan Kovacs. Magy fiz folyoir
10 no.3:249-250 '62.

1. "Magyar Fizikai Folyoirat" szerkeszto bizottsagi tagja.

KOVACS, Istvan

Quadrangular-wave generator for investigating basic phenomena of spark machining. Elektrotechnika 55 no.8:363-366 Ag '62.

1. Kozponti Fizikai Kutató Intézet.

KOVACS, Istvan

Direct-voltage generators of spark-machining installations.
Elektrotechnika 55 no.4:165-171 Ap '62.

1. Altalanos Gaptervezo Iroda.

KILB, Gyula, dr.; KOVACS, Istvan

Observation examination of foreign cucumber varieties. Konzerv
paprika no.5:168-171 S-0 '62.

1. Konzerv- es Paprikaipari Kutatointezet (for Kilb). 2. Kecskemeti
Konzervgyar (for Kovacs).

KOVACS, Istvan

Dieselization in the field of navigation in Hungary. Kozleked
kozl 18 no.50:913-917 16 D '62.

KARPATHY, Laszlo, dr.; KOVACS, Istvan, dr.

Unusual metastasis of bronchial cancer simulating gynecologic tumor.
Magy. onkol. 7 no.1:33-35 Mr '63.

1. Baja Varosi Tanacs.V.B. Korhaza Szuleszeti es Negyogyaszati
Osztaly.

(NEOPLASM METASTASIS) (BRONCHIAL NEOPLASMS) (ENDOMETRIOSIS)
(CARCINOMA, BRONCHIOLAR) (GYNECOLOGIC NEOPLASMS)

KOVACS, Istvan, a mezogazdasági tudományok kandidátusa

"Maize growing experiments, 1958-1960", edited by [Dr] Istvan Iso.
Reviewed by Istvan Kovacs. Magyar Tud 70 no.1:73-75 Ja '63.

1. Magyar Tudományos Akadémia Mezőgazdasági Kutató Intézete,
Martonvásár, tudományos főmunkatársa.

KOVACS, Istvan

Closing address delivered at the Conference on Manufacturing
Machines for the Food Industry. Elelm ipar 17 no.2:66 F '62.

1. Miniszterhelyettes, Koho- es Gepipari Miniszterium.

KOVACS, Istvan; BENKO, Lazer

Measurement of energy stored in plastically deformed metals
by means of adiabatic calorimeter. Magy Fiz Folyoir 12
no.1:31-44 '64.

1. Chair of Experimental Physics, Lorand Eotvos University,
Budapest.

1920 / 1805

L 15651-66 T, EWP(+)/ETI IJF(-) JD

ACC NR: AP6033887

SOURCE CODE: HU/0014/65/098/010/0460/0465

AUTHOR: Kovacs, Istvanne

ORG: Research Institute of the Metallurgical Industry (Femipari Kutato Intezet)

TITLE: Lattice defects in face-centered pure cubic metals

SOURCE: Kohaszati lapok, v. 98, no. 10, 1965, 460-465

TOPIC TAGS: plastic deformation, crystal lattice defect, tempering

ABSTRACT: A method of determining the physical lattice defects of face-centered cubic pure metals is presented. The creation of defect concentrations by plastic deformation, by radiation treatment and by refrigeration is discussed. Also treated are the influence of tempering on the variation of the physical properties of metals, and the explanation of metallographical phenomena by means of physical metallurgy. Orig. art. has: 5 figures and 1 table. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 13, 20 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 040

Card 1/1 fv

UDC: 620.18:548.31

R/004/60/000/009/001/001

D244/D306

AUTHORS: Marcus, Bruno; Clontea, Ion; Kovacs, Iuliu;
Visolau, Violeta; Diaconu, Lucia; and Soltuz,
Constantin, Engineers (Bucharest)

TITLE: Ceramic capacitors for radio engineering

PERIODICAL: Electrotehnica, no. 9, 1960, 321 - 327

TEXT: The article presents some studies conducted by ICET on producing dielectric ceramic materials from domestic raw materials for P 100 and N 750 capacitors. The material for the P 100 capacitors was developed by ICET on the basis of steatite from the Hunedoara region. For the N 750 capacitors, the ICET developed a material consisting of titanium dioxide, zinc oxide and zirconium oxide. The main components of this material called "Ti 11", (N 750) are TiO_2 , ZnO , with additions of ZrO_2 , Al_2O_3 , and SiO_2 . The main properties vary as follows: $tg \delta$ with an increase of TiO_2 the losses drop to $tg \delta = 4 \cdot 10^{-4}$; with an increase of TiO_2 the constant increases to above 80, in case

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Ceramic capacitors for...

R/004/60/000/009/001/001
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of a TiO_2 content of over 80%. TKt : varies from +180 to -710, in a zone of 33 to 50% of TiO_2 . At temperatures above 1,000°C the crystalline phases are TiO_2 and $\text{ZnO} \cdot \text{TiO}_2$. Reducing the temperature to 800°C, the latter enters into a solid solution with TiO_2 . The titanium dioxide was of foreign origin. The determination of dielectric losses carried out with 50 capacitors in dry and humid states is given in Fig. 9. 1. number of capacitors 2. tangent of the loss angle 3. in dry state $\text{tg}\delta_{\text{med}} = 2.53 \times 10^{-4}$ 4. after moistening $\text{tg}\delta_{\text{med}} = 3.6 \times 10^{-4}$. The loss values are included in a narrow range, the "Gauss bell" having a pointed shape. After having moistened the capacitors for 24 hrs in distilled water the losses slightly increased, the shape of the curve, however, remaining the same. The loss values were maintained within the limits admitted by international standards. The distribution of the values of the dielectric losses was measured with a group of 400 capacitors, again resulting in a pointed curve. It is concluded that the manufacturing of ceramic capacitors from domestic raw materials

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Ceramic capacitors for...

R/004/60/000/009/001/001
D244/D306

is in accordance with the need for a rapid development of Rumanian industry. The results obtained correspond to those of foreign products, proving the possibility of manufacturing these capacitors in Rumania. There are 10 figures, 4 tables and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: M.E. Levin: Phase diagrams for ceramics, Ohio, 1956.

ASSOCIATION: ICET

SUBMITTED: April 8, 1960

Card 3/4

ALMASSY, Gyorgy, dr.; BOROMISZA, Gyula; FERENCZY, Jeno; HAAS, Andras; JUHASZ, Endre; KEMENY, Tamas; KOVACS, Ivan; LESETAR, Jozsef; LUKACS, Gyula, dr.; PETIK, Ferenc; SZLAVIK, Ferenc; SZOMBATHY, Emil, dr.; TARNAY, Kalman, dr.

Lectures delivered at the 3d International Measurement Conference.
Meres automat 12 no.9:270-292 '64.

1. Editorial board member, "Meres es Automatika" (for Almassy, Boromisza, Juhasz, Kemeny, Lukacs and Tarnay).

272. NEW PROCESS FOR PETROLEUM REFINING. ROZINS, IV.
 AND NATURE OF THE ORIGINAL WHITE OILS THROUGH CYCLO-
 1951, 1952, and 1953. 1951, 1952, and 1953. 1951, 1952, and 1953.
 1951. In order to replace the costly and slow separation of white oils by
 refining with sulfuric acid, a chromatographic method with silica gel and a
 propyl-butane mixture was developed. The product can be used directly for
 paraffinic purposes or can be sulfonated to yield 1-1.5% naphthene sulphonic
 acids and radical white oils.

KOVACS, J.

Change in size of map paper. p. 159, GEODEZIA ES KARTOGRAFIA. (Allami
Foldmeresi es Terkepeszeti Hivatal) Budapest. Vol. 8, No. 2, 1956

SOURCE: East European Accessions List (EEAL) Library of Congress,
Vol. 5, No. 11, November 1956

HUNGARY / Human and Animal Physiology. Action of
Physical Agents.

T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41839.

Author : Kovacs, J.

Inst : Not Given.

Title : Wounds Caused by Radioactive Irradiation.

Orig Pub: Magyar allatorv. lapja, 1956, 11, No 10-12, 370-
373.

Abstract: No Abstract.

Card 1/1

KOVACS, J. ; SZENTPALY, T.

Determination of the grade of desizing by means of a photometer. p. 404.

MAGYAR TEXTILTECHNIKA. (Textilipari Muszaki es Tudomanyos Egyesulet)
Budapest, Hungary, Vol. 10, no. 11/12, Dec. 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

KOVACS, J.; RADOS, L.; SZENTPALY, T.

The measurement of wettability. p. 478.

MAGYAR TEXTILTECHNIKA. (Textilipari Műszaki és Tudományos Egyesület)
Budapest, Hungary. Vol. 11, no. 12, Dec. 1959.

Monthly List of East European Accessions. (ETAI) LC Vol. 9, no. 2,
Feb. 1960 Uncl.

KGVAC S.J.

The classification of movements of solid bodies. Pt. 2. (Conclusion)

P. 432. (STROJNOELEKTHROTECHNICKY CASOPIS) (Bratislava, Czechoslovakia) Vol. 8, no. 6, 1957

SOI: Monthly Index of East European Accession (EEAI) LC Vol. 7, No. 5, 1958

KOVACS, J.

"The classification of movements of solid bodies. (To be contd.)"

p. 361 (Strojnoelektrotechnicky Casopis) Vol. 8, no. 5, 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

All Western references.

1/1

KOVACS, J. Sandor

"Doklady Akademii pedagogicheskikh nauk RSFSR," no.3, 1962.
Reviewed by Sandor J. Kovacs. Magyar pszichol. szemle 21 no.3:
498-500 '64.

KOVAC, J.

"Tamping Earth in the Construction of a Dirt Dam at Pelanka", P. 291.
(TECHNICKA. PRACA, Vol. 6, No. 5, May 1954, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EFAL), IC, Vol. 4, No. 1,
Jan. 1955, Uncl.

KOVAC, J.

"National Congress on Water Economy in 1954; Hydrology and the Regulation of Flow," P. 294. (TECHNICKA PRACA, Vol. 6, No. 5, May 1954, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), IC, Vol. 4, No. 1, Jan. 1955, Uncl.

KOVAC, J.

"Lowering the Level of Underground Water in the Brown Coal Area of
Southern Slovakia", P. 388, (TECHNICKA PRACA, Vol. 6, No. 7, July 1954,
Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4,
No. 1, Jan. 1955, Uncl.

Kovac, J.

Measurement of soil resistance to shear using a three-axle apparatus
in our laboratories for soil mechanics. p. 59. INZENYRSKE STAVBY.
(Ministerstvo stavebnictvi) Praha. Vol. 4, no. 2, Feb. 1956.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

SZENTPÁLY, Tiborné; KOVACS, János

Mercerization of fabrics made of a mixture of cotton and viscose.
Magy textil 13 no.5:195-197 My '61.

1. Textilipari Kutató Intézet.

RUSZNAK, Istvan, dr.; SZENTPÁLY, Tiborné; KOVACS, János

Properties and finishing methods of mixture fabrics made of cotton and viscose. Magy textil 13 no.6:225-229 Jé '61.

1. Textilipari Kutató Intézet munkatársai.

GECZY, I., dr.; BERGSENYI, Gy.; KOVACS, J.

Testing the factors influencing the pigment fixation.
Magy textil 16 no.16:462-465 0 '64.

KOVACS, Janos (Budapest)

The second track of the Kisujszallas-Apafa railroad line. Vasut
15 no.2:3-4 F '65.

1. Hungarian State Railways.

KOVACS, Janos

Reviewing the 65-year-old bridge shoes. Koh lap 97 no.7:Suppl:
Ontode 15 no.7:162-163 J1 '64.

1. Ganz--MAVAG.

KOVACS, J.; PECZELY, P.

Electron microscopic examination of the effect of neutral red
on the epithelial cells of the seminal vesicle of the mouse.
Acta biol. acad. sci. Hung. 16 no.3:275-283 '66.

1. Institute of General Zoology, Eotvos Lorand University,
Budapest (Head: G. Mödlinger). Submitted May 14, 1965.

KOVACS, J.; HAFIEK, Barbara.

Effect of neutral red on mouse liver cells. Acta biol. Acad.
sci. Hung. 15 no.2:191-201 '64

1. Department of General Zoology, Eotvos Lorand University,
Budapest (Head: G. Molnár).

KOVACS, Janos

Twenty free years in the cultural life of railroad workers.
Vasut 15 no.3:18-22 Mr '65.

1. Trade Union of Railroad Workers.

KOVACS, Janos

For the success of the railroad traffic in the winter. Kozleked
kozl 21 no.2:34-36 10 Ja '65.

1. Ministry of Transportation and Postal Affairs, Budapest.

SZABO, Margit; KOVACS, János

Corrosion of brass pipes of the sugar factory evaporator. Cukor
18 no.3:77-84 Mr '65.

1. Central Research Institute of Food Industry, Budapest.

KOVACS, Janos

Conference of socialist brigade leaders of the Budapest
Railroad Directorate. Magyar vasut 8 no. 11:2 4 Je '64.

KOVACS, Janos

Some experience with the work of trade-union stewards in Budapest.
Magy vasut 7 no.12;2 17 Je '63.

KOVACS, Janos, szaktanar

A rare collection of carburetors. Auto motor 16 no.6:11
21 Mr '63.

1. Munkaugyi Miniszterium 208-as Intezete.

KOVACS, János

"The Party counts on the diligence of railroaders"; Comrade
János Brutyo's visit to the Ferencvaros railroad station.
Magyar Vasút 7 no. 22:1. 16 N°63.

KOVACS, Janos

Polish senior championship for the "Skrydlata Polska" cup.
Repules 16 no.12:16 D '63.

KOVACS, Janos

Disciplinary punishment or service interest? Magy vasut 7 no.23:
2 2 D '63.

KOVACS, Janos

Cytophysiological studies on the Leydig cells of the mouse testis.
Acta biol Hung 11 no.1:7-14 '60. (REAI 10:4)

1. Institute of General Zoology, Eotvos Lorand University of
Sciences, Budapest (Head: G.Modlinger)
(CELLS)
(TESTICLE)

KOVACS, Janon

Railroad timetable and return of locomotives. Vasut 12 no.12:1-2
D '62.

1. MAV Vezetigazgatosag I/8A osztaly helyettes vezetoje.

KOVACS, Janos

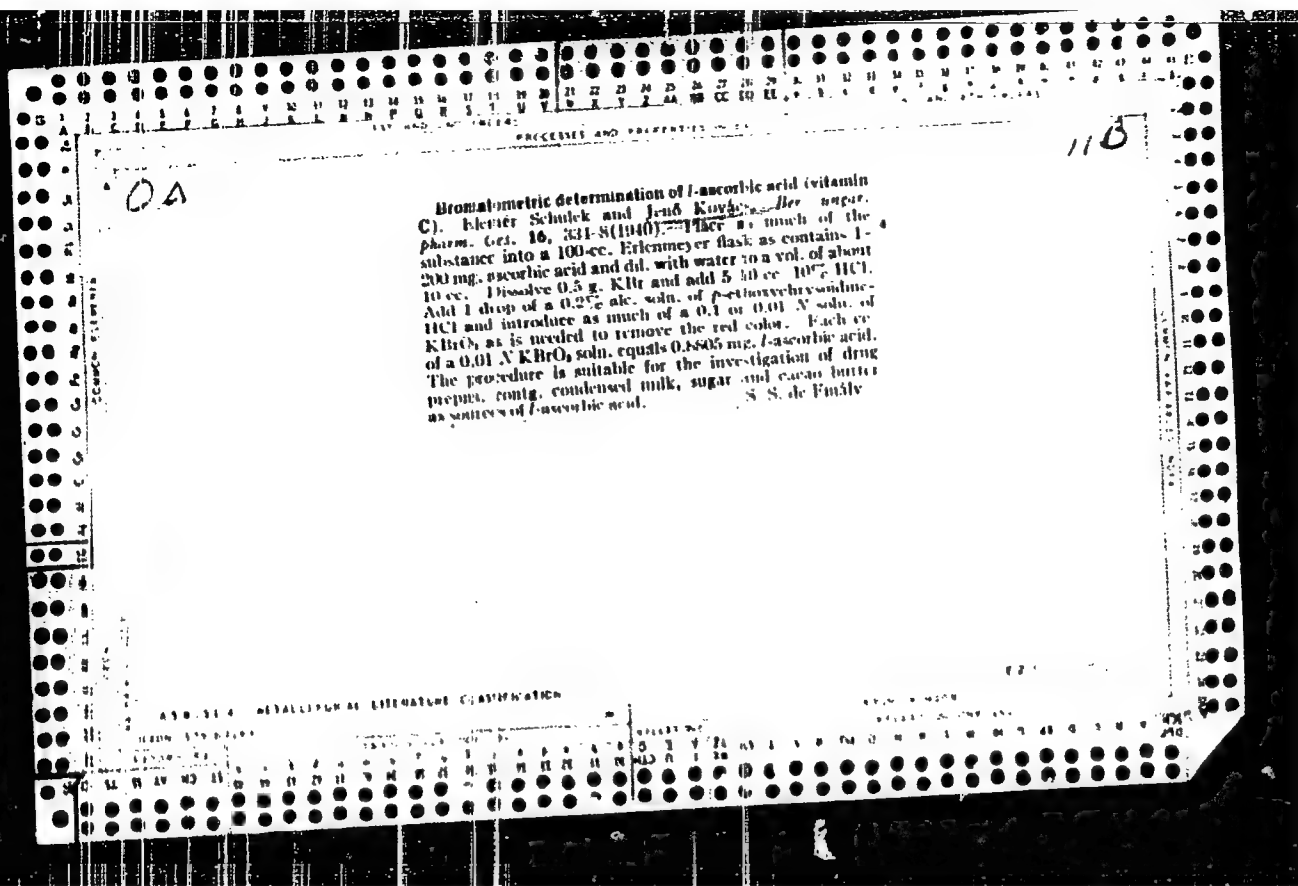
Cultural weeks of railroadmen; a mass movement. Munka 12
no.8:27 Ag '62.

1. Vasutas Szakszervezet budapesti kulturális bizottságának
vezetője.

KOVACS, Janos

Running passenger trains as scheduled in the timetable.
Vasut 13 no.4:1-2 Apr '63.

1. I/8 A osztaly helyettes vezetoje.



12

CA

Comparative physicochemical investigations on the caseins of various domestic animals. *Isc. Kovács-Kisbenedek (Huszár) Élet- Képes Kötet 27, 412-414 (1940).*—Casein was prepd. from the milk of cows, sheep, goat, horse and ass by dropping 0.05 N HCl into the milk with continuous mixing until casein pptd. in form of fine floccules. The ppt. was rubbed with much 1% NaCl soln. and decanted with d l. distd. water 4 times. After sedimentation the ppt. was centrifuged and centrifuged ten times as much 90% alc., sedimented and centrifuged again, and finally filtered and washed with 90% alc., ethd. abs. alc. and abs. ether. The product was powd., exd. in a Soxhlet app. 8 hrs. with ether, and dried in vacuo over concd. H₂SO₄. The casein yield from 3 l. milk was 108 g. for sheep milk, 78 g. for cow milk, 28.6 g. for horse milk, 65 g. for goat milk and 20 g. for ass milk. The ΔE values (distance in mm. of the max. and min. values of the absorption curves) were 4.81 (cow), 3.61 (sheep), 3.10 (goat), 2.65 (horse) and 2.60 (ass). The α values were 104.5°, 114.7°, 107.82°, 98.7° and 110.4°; tyrosine contents 5.90, 5.39, 4.82, 5.36 and 4.63%; tryptophan contents 1.63, 1.51, 1.39, 1.18 and 0.87%; P contents 0.84, 0.89, 0.81, 0.92 and 0.93%; S contents 0.82, 0.73 and 0.84% (not detd. in horse- and ass-milk caseins). The actual differences in the properties of the caseins of the milk of various domestic animals are large enough to

det. the origin of pure casein preps.; they do not give a reliable basis for judging the amount of various caseins in mixed casein preps. (e. g., in cheese). Casein investigation seems not to be suitable for food-control service. S. S. de Finely

ASB-15A METALLURGICAL LITERATURE CLASSIFICATION

1900 1910 1920 1930 1940 1950 1960 1970 1980 1990

1900 1910 1920 1930 1940 1950 1960 1970 1980 1990

12

Suitability for human consumption of the meat of cattle
killed by arsenic intoxication. Jeno Kovacs (Univ. Agr.
Sci., Vet. Faculty, Budapest, Hung.). *Magyar Állatorvosok*
Lapja 4, 277-9(1949).—The meat of cattle killed by Ca
arsenate intoxication contained 1.0-20.0 mg./kg. As₂O₃.
Callow 1.0 mg./kg. As₂O₃. Meat below 5 mg./kg. As₂O₃
content is judged to be suitable for human consumption.
Meat with higher As content was processed to powder meat.
the product contained 0.04-10.6 mg./kg. As₂O₃ at a 10-
11% moisture content. It can be mixed to feed in amt. up
to 10%
István Farkas

KOVACS, J.

Kertész, P.; Kovacs, J. "The Latest Hungarian Findings Relative to Increasing the Fertility of Mangalica Sows through Feeding" p. 341 (Agrartudomány, Vol. 5 No. 11, November, 1953, Budapest)

East European Vol. 3, No. 3
SO: Monthly List of ~~Russian~~ Accessions, Library of Congress, March 1954
~~1953~~, Uncl.

KOVACS, J.

Temperature and humidity conditions in open and closed pigpens during winter for farrowing swine. p. 21. (Magyar Mezogazdasag, Vol. 11, no. 3, Feb. 1956 Budapest)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

KOVACS, J.

KOVACS, J. How to increase the fecundity of sows. p. 19

Vol. 11, no. 8, Apr. 1956

MAGYAR MEZOGAZDASAG

AGRICULTURE

Budapest, Hungary

So: East European Accession, Vol. 6, No. 3, March 1957

KOVACS, J.

kovacs, J. Results of breeding white meat pigs in 1955 at
Keszthely. p. 24

Vol. 11, No. 10, May 1956
MAGYAR MEZAGAZDASAG
AGRICULTURE
Budapest, Hungary

SO: EAST EUROPEAN ACCESSIONS, VOL. 6, No. 3, March 1957

KOVACS, J.

KOVACS, J. Mechanization of farms for hog breeding and feeding. p. 20.
RememGering Iare Ujh Iyi. p. 21.

Vol. 11, no. 15/16, Aug. 1956

MAGYARMEZOGAZDASAG

AGRICULTURE

Budapest, Hungary

So: East European Accession, Vol. 6, No. 5, May 1957

KOVACS, J.; KOVACS, G.

Important game diseases in the Tukk Mountains. p. 68. (Az Erdo, Vol. 6, No. 2, Feb 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

KOVACS, J.

Diurnal changes in the interstitial cells of the testicles of albino mice. In English, p. 69

ACTA BIOLOGICA Budapest, Hungary Vol. 10, No. 1, 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 9 No. 2, Feb. 1960
Uncl.

KOVACS, J.

What veterinary hygiene expects from the Hungarian pharmaceutical industry.
p. 151.

MAGYAR KEMIKUSOK LAPJA. (Magyar Kemikusok Egyesulete) Budapest, Hungary
Vol. 14, no. 4, Apr. 1959.

Monthly List of East European Accessions (EMAI), LC, Vol. 3, No. 3,
August 1959.
Uncla.

HUNGARY

KOVACS, Jeno, Dr; University of Veterinary Medicine, Department of Pharmacology (Allatorvostudományi Egyetem Gyógyszertani Tanszéke)
(chairman KOVACS, Jeno, Dr, professor, Dr of Veterinary Sciences)

"Experiences with the Insecticide Containing Trichloro-Dimethyl-Oxyethyl-Phosphonate."

Budapest, Magyar Allatorvosok Lapja, Vol 17, No 12, Dec 62, pp 444-446.

Abstract: [Author's English summary modified] In Hungary the fly population is becoming resistant to contact insecticides on an increasing scale. The author reports his studies on a domestically produced insecticide of a new molecular structure, trichloro-dimethyl-oxyethyl-phosphonate. A combination of active substances, surface material and attractive substance gave immediate good effects and its residual activity lasted 1-6 weeks. On recently whitewashed surfaces the compound is rapidly inactivated. The death of the flies is caused by exsiccosis caused by the organic ester of phosphonic acid.

[no references]

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KOVACS, Jeno

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825510002-8"

Ophthalmological aspects of infectious diseases of animal origin.

Szemészet 99 no. 1: 31-36 Mr '63

1. Budapesti Kisipari Allatorvos Ellenorzo Szolgalat. (Igazgato: Mehes Gyorgy dr. foallatorvos)
(OPHTHALMOLOGY) (BRUCELLOSIS) (LEPTOSPIROSIS) (LISTERIA INFECTIONS)
(TOXOPLASMOSIS, OCULAR) (ECHINOCOCCOSIS) (FOOT-AND-MOUTH DISEASE)
(AVIAN LEUKOSIS) (ZOOSES)
(PLEURIPNEUMONIA-LIKE ORGANISMS)..

KOVACS, Jeno, dr., megyei vezeto foallatorvos (Szekszard); MAGYARI, Jeno, dr.;
NYILASZ, Istvan, dr., az allatorvostudomanyok doktora (Budapest)

Protecting dairy cattle against Streptococcus mastitidis. Magyar
allatorv lap 19 no.5:209-210 My '64

1. Head, State Animal Hospital, Szekszard (for Magyar).

KOVACS, Jeno, f. mernok

Specialization of foresters in the service of technical development. Erdo 13 no.9:402-406 S '64.

1. Western Bukk State Forestry, Eger.

SZABO, Pal Zoltan; JONAS, Klara, dr.; VARADI, Gyorgy; BIRO, Antal;
UPOR, Endre; RADO, Aladar; CZIRJAK, Imre; KOVACS, Jeno;
VALKO, Endre, dr.; ADONYI, Ivan; FODOR, Gyorgy; OSZETZKY,
Egon; KALMAR, Pal; DANYI, Dezső; GYORGY, Karoly; OVARI, Antal;
PHILIP, Miklos; BAKAI, Laszlo; JOO, Oskarne; SZITAS, Lajos;
HELLENYI, Miksa; KOLTA, Janos.

Formation of an uniform country organization for the Federa-
tion of Technical and Scientific Associations. Pecsí musz
szeml 8 no. 4. 19-23 - O-D'63.

1. "Pecsi Muszaki Szemle" főszerkesztője (for Fodor).
2. "Pecsi Muszaki Szemle" szerkesztője (for Hellenyi, Kolta
and Oszetaky).

ADAMKO, Jozsef; KOVACS, Jeno, fomernok; V. SZABO, Ferenc

A well developed technology requires a new management in the forest districts. Erdo 12 no.5:199-203 My. '63.

1. Nyugatbukki Allami Erdogazdasag igazgatoja, Eger. (for Adamko).
2. Nyugatbukki Allami Erdogazdasag erdeszetvezetoje, Eger(for V. Szabo).
3. Nyugatbukki Allami Erdogazdasag, Eger. (for Kovacs).

KOVACS, Jenone [translator]

An exhibition on nuclear fission in the United States; Geneva, 1948.
Atom taj 2 no.2;8/A-48/A Ap '59.

BICKERTON, R.J.; JUKES, J.D.; KOVACS, Jenone [translator]

Direct conversion of thermonuclear energy to electrical power.
Atom taj 2 no.2:83-96 Ap '59.

GYOKOS, Imre; KOVACS, Jolan; KARVAZY, Dezsó

New method for planning the costs of machine building. Magyar
ipar 12 no.9:425-430 '63.

HUNGARY/Chemical Technology - Chemical Products and Their H-13
Application. Ceramics. Glass. Binders. Concrete.

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25986

Author : Kovacs Jozsef, Naray-Szabo Istvan, Novak Andras
Inst : -
Title : Production of Acid-Resistant Concrete by Means of a Gas
 Treatment.

Orig Pub : Magyar Epitoipar, 1957, 6, No 3-4, 139-142.

Abstract : Description of a method of treatment of concrete articles
 with SiF_4 under pressure, to increase the resistance of
 such articles to the action of acids and salts.

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KOVACS, Jozsef
APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825510002-8

Concrete ocratizing in Hungary. p. 259.

STAVIVO. (Ministerstvo stavebnictvi) Praha, Czechoslovakia. Vol. 37, no. 8, Aug.
1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 10, Oct. 1959. Uncl.

KOVACS, József

Conference on concrete corrosion. Építés szemle 5 no.7:223-225 '61.

KOVACS, Jozef

Mathematical Review
June 1954
Mechanics

10-4-54

2
Kováč, Jozef. Contribution to the proof of Hartmann's theorem. Mat.-Fyz. Sborník Slovensk. Akad. Vied Umení 1, 51-58 (1951). (Slovak. Russian summary)
In this paper the method of vector analysis is applied to prove Hartmann's theorem which is used for a simple construction of the center of curvature of the trajectory of a point of a rigid system in its motion in the plane.
Author's summary.

KOVACŠ, JOZEF

"Kinematika. Bratislava, Vydavateľ'stvo Slovenskej vysokej školy technickej, 1951.
135 p. (Kinematics; a textbook)"

SO: East European, L. G. Vol. 2, No. 12, Dec. 1953

SO: Monthly List of Russian Accessions, Library of Congress, _____ 1953, Uncl.

KOVACS, JOSEF

Teoreticka kinematika. Schvalene ako pomocna kniha pre vysoke skoly.
(Vyd. 1.) Bratislava, Slovenske vydavatelstvo technickej literatury,
1955. 243 p. (Theoretical kinematics; approved as a manual for schools
of higher education. 1st ed. bibl., diags., index)

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

HUNGARY / Farm Animals: General Problems. Q

Abs Jour : Ref Zhur - Bibliogiya, No 2, 1959, No. 7283

Author : Kallai, Laszlo; Muhrad, Andras; Zoldy, Miklos;
Kovacs, Jozsef; Bernus, Janos

Inst : Not given

Title : The American Artichoke (Helianthus tuberosus L.) as a Feeding Agent. 3. The Effect of the Carbohydrates of Artichoke Tubers on the in vitro Function of Intestinal Microorganisms

Orig Pub : Allattenyesztes, 1957, 6, No 2, 169-176

Abstract : As a result of biochemical investigations in which the method of an "artificial rumen" was applied, the authors established that the carbohydrates of the American artichoke (inulin and fructose) influence the vital activity of the microorganisms of the rumen more

Card 1/2

"APPROVED FOR RELEASE: 06/14/2000

Problems

CIA-RDP86-00513R000825510002-8"

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 7283

favorably, represent more abundant sources for energy in the synthesis of carbamide /urea/ and decomposition of cellulose than carbohydrates which are predominant in potatoes or in forage feeds (starch, glucose). --
B. A. Kanzyuba

Card 2/2

JANCSO, Janos; KOVACS, Jozsef

Mechanization and assembly line system in the fur industry. Bor
cipo 12 no.5/6:169-172 0 '62. (MIRA 15:8)

1. Pannonia Szormekikessito es Konfekcionalo Vallalat. 2. "Bor- es
Cipotechnika" szerkeszto bizottsagi tagja (for Jancso).

KOVACS, Jozsef

Snow barricades along the tracks. Magyar vasut 7 no.4:3 18. 1963.

KCVACS, Jossel

Our woman delegate has done an excellent job; the portrait of
a delegate to the Party Congress. Magy vasut 7 no.2:5 17 Ja
'63.

KOVACS, Jozsef

First experiences of the reorganization in the Small Motor
and Machine Factory. Munka 13 no.6:22-23 Je '63.

1. "Nepszabadsag" munkatarsa.

KOVACS, Jozsef

Let us increase the level of the special mechanical trades.
Magy op ipar 12 no.4:145-147 '63.

1. Orszagos Mpitolipari Igazgatosag vezetöje.

KOVACS, Jozsef, (Budapest); BARTHAZI, Istvan, uzemvezeto (Gyongyos)

Motorists' letters. Auto motor 16 no.14:5 21 JI '63.

KOVACS, Jozsef

Protection of reinforced concrete basins by SiF_4 gas treatment.
Magy ep ipar 12 no.5:219-220 '63.

KOVACS, Jozsef

Operation of No.520 locomotives. Magyar vasut 7 no.12:1 17 Je
'63.

KOVACS, Jozsef

What is new in Nyirogyhaza? Magyar vasut 7 no.13:6 2 J1 '63.

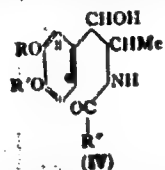
Availability of safrole for the synthesis of 1-substituted 2-methyl-6,7-dioxyquinoline. József Károlyi (Univ. Szeged, Hungary). *Acta Univ. Szegediensis, Acta Chem. et Phys.* [N.S.] 1, 109-44 (1943).—A cheap method for the production of 3,4-dioxy-1-propenylbenzene using safrole (I) as the basic substance was sought. The best procedure found was treating I under pressure with KOH in EtOH or MeOH, thus obtaining a mixt. of methoxyisoeugenol and methoxyisohavibetol. This mixt. in abs. alc. was treated with small amts. of concd. H_2SO_4 and 4-propenylpyrocatechol added, and, in the presence of K_2CO_3 and EtI or EtBr, ethylated to 3,4-dioxy-1-propenylbenzene (II), m. 54° , in 85% yield. The following were also obtained: 3,4-dioxy-1-propenylbenzene pseudonitrate (III), m. $124.5-5.5^\circ$ (decompn.), 53% yield calcd. on the amt. of the II used; 1-(3,4-dioxyphenyl)-2-nitropropyl acetate (IV), colorless large prisms, m. 75° , prepd. in 60% yield from III; 3,4-dioxy-1-(2-nitropropenyl)benzene, prepd. from IV, large prisms or fine needles or shiny thin sheets according to the alc. content of solvent, m. 50.5° ; 1-(3,4-dioxyphenyl)-2-acetamido-1-propanol (V), prepd. from IV in 65.8% yield, white crystals, m. 128° ; 1-(3,4-dioxyphenyl)-2-amino-1-propanol acetate-HCl, from V, m. 162° ; 1-(3,4-dioxyphenyl)-2-(N-acetylhydrosaminol)-1-propanol (VI), from V in 80% yield, m. 116.5° (its alc. soln. gives a violet color with $FeCl_3$ soln.); 1-(3,4-dioxyphenyl)-2-hydroxaminopropyl acetate-HCl, prepd. from VI, m. $138.5-9.5^\circ$ (decompn.); 1-(3,4-dioxyphenyl)-2-amino-1-propanol, prepd. from V in 53% yield, m. $116-20^\circ$ (HCl salt, m. $170-7^\circ$); 1,3-dimethyl-6,7-dioxyisoquinoline,

prepd. from V in 74% yield, m. $96-7^\circ$; 1-(3,4-dioxyphenyl)-2-benzamido-1-propanol (VII), 81° , from V, m. $128.5-3^\circ$; 1-phenyl-3-methyl-6,7-dioxyisoquinoline (prepd. from VII with $POCl_3$ to obtain the cryst. hydrochloride, m. 230° (decompn.), which was filtered off and alkalinized), fine needles, m. $125-6^\circ$ (82% combined yield of free base plus HCl salt). 1-(3,4-dioxyphenyl)-2-(3,4-dioxybenzamido)-1-propanol (VIII), prepd. from V in 81.8% yield, fine needles, m. 168.5° ; 1-(3,4-dioxyphenyl)-3-methyl-6,7-dioxyisoquinoline-HCl, 80% from VIII, yellowish green prisms, m. $214-10^\circ$; free base m. $96-7^\circ$; 1-(3,4-dioxyphenyl)-2-phenylacetamidopropyl phenylacetate (IX), prepd. from V in 60% yield, fine needles, m. 132° ; 1-phenyl-3-methyl-6,7-dioxyisoquinoline-HCl (obtained from IX), long needles, m. $213-15^\circ$ (decompn.); alkali yields the free base, colorless octahedrons, m. $85-0^\circ$; 1-(3,4-dioxyphenyl)-2-veratroylamino-1-propanol, 81% from V, white crystals, m. $149-51^\circ$; 1-(3,4-dimethoxyphenyl)-3-methyl-6,7-dioxyisoquinoline-HCl (X) m. 221.5° ; free base m. $111-12^\circ$; 1-(3,4-dioxyphenyl)-2-(3,4-dioxyphenylacetamido)-1-propanol, 41% from X, m. $98-9^\circ$; 1-(3,4-dioxyphenyl)-3-methyl-6,7-dioxyisoquinoline, fine needles, m. $117-18^\circ$; HCl salt m. $201-2^\circ$; 3,4-dioxyphenylacetic acid (XI), prepd. by distg. its ester under a vacuum, hexagonal crystals, m. 82° ; 3,4-dioxy- α -tolyl chloride was a yellow oil. 3,4-dioxybenzoyl chloride, a white cryst. mass, was prepd. in 94.7% yield by treating XI with $SOCl_2$. Istvan Pinyai

Determinations of the constitution of some synthetic isocoumarins. Closure of the isocoumarin ring. Viktor Bruckner, Jozef Kovács, and Koloman Kovács (Univ. Szeged, Ungary). *Ber.* 77B, 810-17 (1944). — Pfeiffer, Breitbach, and Scholl (C.A. 34, 2383⁹), by processes involving many steps, converted brasilin and hematocyllin into what they considered to be 3-methyl-1-aryl-6,7-dimethoxyisocoumarins (I, R = R' = Me, R' = 2,4-di(MeO)C₆H₃ and 2,3,4-tri(MeO)C₆H₂, resp.). They attempted to prove the structures of their compounds, which gave α -naphthionic acid, 4,5,1,2-(MeO)₄C₆H₂(CO₂H)₂ (II), with KMnO₄, by synthesizing the corresponding ethers (R' = (MeO)₂C₆H₃ and (MeO)₃C₆H₂) from RO(R'O)



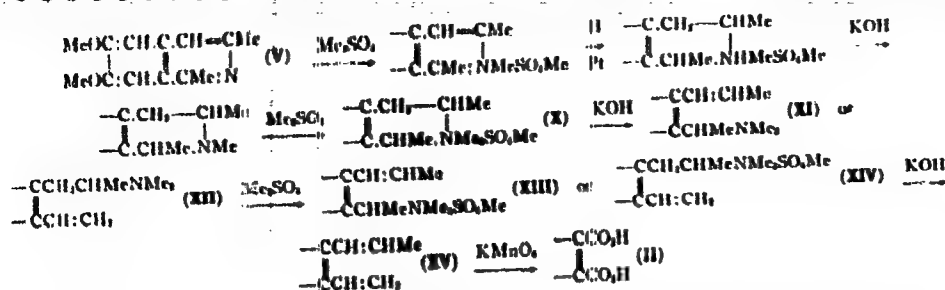
(1)



N

C₆H₅CH=CHMe by the method of B. and v. Fodor (C.A. 32, 3403), which consists in subjecting the side chain

to the series of reactions: $\text{--CH:CHMe} + \text{N}_2\text{O} \rightarrow \text{--CH(NO)CH(NO)Me} + \text{AcO} \rightarrow \text{--CH(OAc)CH(NO)Me}$ + electrolytic reduction, then $\text{Na}_2\text{CO}_3 \rightarrow \text{--CH(OH)CH(NHAc)Me}$ (III) + dil. $\text{H}_2\text{SO}_4 \rightarrow \text{--CH(OH)CH(NH}_2\text{)Me} + \text{R}^*\text{COCl} + \text{NaOH} \rightarrow \text{IV}$, and closing the ring by treating IV with POCl_3 . As the products thus obtained were not identical with those from baselin and hematoxilin, P., B., and S. concluded that the ring closure had taken place at the 2-, not the 4-C atom of IV. It therefore seemed desirable to check the structure or the direction of ring closure of all the isouquinolines which had been prepd. by the above method, especially as Sugawara and Slightear (C.A. 35, 5113⁹) had pointed out that the direction of ring closure in the prepn. of the isouquinoline neopavarine required verification. It was first of all undertaken to det. the influence of the ether grouping (RO and R'O) on the direction of the ring closure, with the 1,3-dimethylinouquinolines (I, R' = Me), with R, R' = Me, Me (V). Et, Et (VI), Me, Et (VII), Me, PhCH₂ (VIII), and PhCH₂, PhCH₂ (IX), all of which were readily obtained from the acetylflans of type III, were investigated. Since all are genetically related (see below) it was necessary to det. the structure of only 1 of them (V). This was accomplished by exhaustive methylation and KMnO_4 oxidation of the end degradative product through the following series of reactions:



No attempt was made to det. the point at which the ring in **X** opens to give **XI** or **XII**, which is immaterial for detg. the structure of **V**. The N-free end product **XV**, obtained, with copious evolution of N_2 , from **XIII** or **XIV** with KOH , was apparently not homogeneous; it was an almost colorless oil, of faint camphurlike odor, permeated with crystals; the oily part was very easily sol. in cold petr. ether while the solid part cryd. from much petr. ether in needles. These crystals (0.5 g. from 4.2 g. **XIII** or **XIV**), m. 111° , on titration with Br took up only about 1 mol. Br , indicating, as did their analysis also, that they were not **XV**. Because of lack of sufficient material, this cryst. product was not further studied, and the crude oily degradation product, consisting of a few of the crystals, was oxidized with KMnO_4 with a further purification. The formation of **II**, m. $184-6^\circ$ (ethylamide, m. $230-2^\circ$), showed that ring closure of α -p. **III** led to corapols. of type **I**, irrespective of the nature of R' and R'' , in every case investigated. The genetic relationship between **V**-**IX** was proved as follows: **VIII**, obtained from bioisogenic Me ether (v. Potor, C. A. 50, 2801),

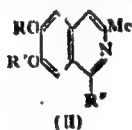
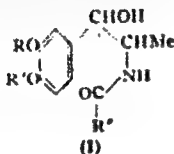
when debenzoylated to I ($R = R' = \text{Me}$, is ethylated with EtSO_3Na gave a product identical with VII prep'd. from isoeugenol Et ether through III ($R, R' = \text{Me}$, Et). IX had already been converted by v. P. through I ($R = R' = \text{Me}$, $R' = \text{H}$) into I^{H} , identical with that obtained from isoeugenol Me ether through III ($R, R' = \text{H}$, EtSO_3Na). IX, obtained from 3,4-(PhCH_2O)₂- $\text{C}_6\text{H}_4\text{CH}_2\text{CH}_2\text{CH}_2\text{Me}$ through III ($R = R' = \text{PhCH}_2$), was debenzoylated to I ($R = R' = \text{H}$, $R' = \text{Me}$) which with MeSO_3Na yielded V and with EtSO_3Na a VI identical with that obtained from III ($R = R' = \text{Et}$) by ring closure. 1,3-Dimethyl-6,6'-dimethoxyxyquinoline- MeSO_3 (XVI) (35 g. from 26.5 g. V in 200 cc. warm benzene with 25 cc. MeSO_3), needles from EtOH-AcOEt , m. 222-3° (decompos.); m. 275-8°, mol. in dil. NaOH and H_2SO_4 , was obtained in 1-g. yield by hydrogenating 2.4 g. IX in 250 cc. aldehyde-free alc. with 0.1 g. of 22% Pd-charcoal (pre-reduced in 20 cc. alc.) [2 mols. H was absorbed in a few min.], filtering, concg. to 80 cc., allowing to stand 12 hrs. in ice, and washing the resulting crystals with MeOH ; treated without further purification in 10% NaOH with MeSO_3 , it gave V, isolated as the HCl salt, needles from MeOH-EtO .

1a, 207-0° (decompn.), and with H_2SO_4 it yielded VI (HCl salt, m. 236-8° from alc. eth.). VII, from 1,3-dimethyl-6-methoxy-7-hydroxyquinoline and H_2SO_4 , needles from aq. alc., changing to minute prisms at 100° in vacuo, m. 128-30°. VII was also prepd. from isoeugenol in ether, 16 g. of which, in 100 cc. ether, added to 30 g. NaNO_2 under 40 cc. water, layered treated dropwise in the course of 4 hrs. with 60 cc. of 20% H_2SO_4 , and the resulting product thoroughly washed with water, alc., and ether, and dried at room temp. gave 14 g. of the pseudo-nitrate, m. 110° (decompn.), after rubbing with much alc. and washing repeatedly with ether; 24.5 g. of the crude product suspended in 75 cc. of Ac_2O was treated with a few drops of concd. H_2SO_4 , and after it had dissolved, with vigorous evolution of nitrous gases, the solu. was vigorously stirred with much water until the excess of Ac_2O had been destroyed, and the yellow cryt. product was thoroughly washed with water, dried, and crystd. from MeOH after treatment with charcoal, giving 20 g. 1-(3-methoxy-4-ethoxyphenyl)-2-nitropropyl acetate, prisms from MeOH, m. 105-6°; 20 g. of this was reduced electrolytically (C.A. 37, 6050) (catholyte, 75 cc. glacial AcOH + 150 cc. alc. + 85 cc. alc. H_2SO_4 (100:25 by vol.); anolyte, 20% H_2SO_4 ; Hg cathode; peroxidized Pb plate anode; cathodic c.d., 0.07 amp./sq. cm.; temp., 25-30°; current used, 2 times the calcd.), then treated with a concd. aq. solu. of 40 g. crystal. NaOAc , filtered from the Na_2SO_4 ,

30 g. in 300 cc. of 80% alc. hydrogenated with 0.5 g. Pt oxide took up 2 mols. H in 2 hrs., and evapd. in vacuo gave a yellowish oil yielding from acetone-ether 18.5 g. of the 1,2,3,4-tetrahydro deriv. of XVI, prisms from abs. MeOH, m. 176-0°; 18 g. of this in 40 cc. water with 35 cc. of 20% KOH gave an oil which was shaken out portionwise with benzene, the benzene ext. dried with Na_2SO_4 , heated 0.5 hr. on the water bath with 15 cc. Me_2SO , cooled, and decanted from the oily ppt., which was repeatedly washed with ether and treated with a little acetone, whereupon it crystd., giving 6 g. (+5 g. more from the mother liquors after addn. of ether) of 1,2,3-trimethyl-6,7-dimethoxy-1,2,3,4-tetrahydroisoquinoline- Me_2SO , X, m. 220° (from abs. MeOH- Me_2CO). When 6 g. X was heated on the water bath with 50% KOH and the oil which sepd. on cooling was taken up in ether, there was obtained 3.0 g. of the open-chain base (XI or XII) as a thick colorless oil which readily absorbed Br in CHCl_3 ; *picrate*, $\text{C}_{18}\text{H}_{18}\text{N}_2\text{O}_6$, yellow needles from water, m. 145°; *HCl* salt, needles from alc. ether, m. 105-0° (decompn.). The base (3.4 g.) in 15 cc. anhyd. benzene, heated 0.5 hr. on the water bath with 5 cc. Me_2SO , and, after cooling, treated with 150 cc. abs. ether, yielded 4.5 g. of the *compd.* XIII or XIV, hygroscopic needles from MeOH- Et_2O , m. 110°, m. 110-20°, after drying in vacuo over P_2O_5 . 1,3-Dimethyl-6,7-dihydroxyquinoline, pale greenish yellow, evapd. in vacuo, treated with excess of concd. Na_2CO_3 solu., and the solid product washed with water, dried, and crystd. from MeOH- AcOH , giving 14 g. 1-(3-methoxy-4-ethoxyphenyl)-2-acetamido-1-propanol (III), needles, m. 108-0°; 2 g. of this in 25 cc. toluene stable to POCl_3 (C.A. 32, 3400), gently boiled 1 min. with 2 cc. POCl_3 , yielded on cooling 1.3 g. of the *HCl* salt, needles from alc. AcOH , m. 200°, of VII.

C. A. R.
6-25-57, 5000

Determination of the constitution of some synthetic isoquinolines. Isoquinoline ring closure. H. G. Bruckner, Jr., Jozsef Kovacs, and Johanna Nagy (Univ. Szeged, Hungary). *Ber.* 77B, 710-14, 1944; *cf.* C.A. 40, 688P. --In Part I it was shown that the intramolecular condensation of 1-(3,4-dialkoxyphenyl)-2-acetamido-1-propanols (I, R, R' = Me, Et, or PhCH₂, R' = Me) always gives 6,7-dialkoxy-1,3-dimethylisoquinolines (II), regardless of the nature of R and R'. It has been found that this is also true of 1-(3,4-methylenedioxyphenyl)-2-phenylacetamido-1-propanol, thus confirming the structure (II, R + R' = CH₂O, R' = PhCH₂) previously assigned (C.A. 30, 3000P) to the condensation product (III). The structure of III was established by oxidative degradation to hydrazine acid (IV) of the N-free product (V) obtained by exhaustive methylation of III. III, Me₂SO, (45 g. from 20 g. III in 300 cc. benzene heated 1 hr. on the water



bath with 24 g. Me₂SO), m. 187-0° from alc.-ether; 10
 60 g. in 600 cc. 50% alc. with 0.5 g. Pt oxide absorbed 2
 H in 10 hrs., giving 45.3 g. of the 1,2,3,4-tetrahydro-
 isoquinoline, m. 142° (decompn.);
 40 g. of this in 70 cc. warm water, converted with 165 cc.
 of 10% KOH into the free quaternary base, shaken out
 with 300 cc. benzene, dried with Na₂SO₄, and heated 0.5
 hr. on the water bath with 40 cc. Me₂SO, gave 40.1 g.
 2,3-dimethyl-1-benzyl-6,7-methylenedioxy-1,2,3,4-tetra-
 hydroisoquinoline-Me₂SO, prisms from abs. alc.-ether, m.
 170-80°; 20 g. of this, converted into the free quaternary
 base (VI) by treatment with 120 cc. cold satd. KOH, then
 refluxed 4 hrs., extd. with ether, evapd. to dryness, and
 distd., yielded 2-(2-dimethylaminopropyl)-6,5-methylene-
 dioxytoluene (VII), yellowish viscous oil, b. 230-45°
 (acid sulfate, C₁₁H₁₄O₂N₂, needles, m. 169° (decompn.),
 0.1 g. of which in water immediately decolorizes 3 drops of
 0.1 N KMnO₄, giving a distinct odor of BzH); 8 g. of the
 crude undistd. VII in 50 cc. benzene, allowed to stand 1 hr.
 with 10 cc. Me₂SO, then treated with 100 cc. acetone and
 50 cc. anhyd. ether (incipient turbidity), and allowed to
 stand 3 days, gave 9.1 g. of VII, Me₂SO, m. 262-3°, 8 g.
 of which, boiled in 150 cc. of 50% KOH until the vigorous
 evolution of NMe₃ subsided (15 min.), yielded 4.5 g.
 crude (3.3 g. recrystd.) 2-propenyl-6,5-methylenedioxy-
 stilbene (?) (V), prisms with violet fluorescence from lig-
 roin, m. 135-7°. III, Me₂SO, is also degraded by KMnO₄
 to IV, along with BzH. Rupture of the ring of the qua-
 ternary cyclic base (VI) probably occurs between C atom
 1 and the N, since very small amts. of KMnO₄ split off
 BzH from the opened base (VII) even in the cold. Only

the structure of V remains in doubt: it absorbs only 2
atoms of Br in CHCl_3 in the cold and hence there is a pos-
sibility that the side chains have formed a ring.

C. A. R.

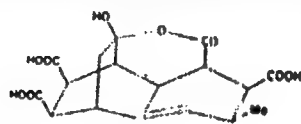
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The possibility of the existence of aliphatic nitroso compounds. J. Kovács. *Acta Univ. Szeged, Chem. et Phys.* 2, 21-22 (1948).—To 10 g. $\text{ArCH(OAc)CH(NO}_2\text{)Me}$ (I) ($\text{Ar} = p\text{-MeOC}_6\text{H}_4$) (Brückner and Krámbi, *C.A.* 30, 5990^o) in 100 ml. EtOH and 50 ml. glacial AcOH was added 15 ml. H_2SO_4 (d. 1.42) and the I reduced electrolytically at a c.d. of 0.07 amp./sq. cm.; the filtered catholyte yielded 2 g. 1-(*p*-methoxyphenyl)-2-nitrosopropyl acetate (II), m. 145-7°, also obtained by oxidation of $\text{ArCH(OAc)CH(NHOH)Me.HCl}$ (III) with H_2O_2 . Similar electrolytic reduction of I ($\text{Ar} = 3,4\text{-CH}_2\text{C}_6\text{H}_3$) gave the corresponding II, m. 169-71° (decompn.), also obtained from the 3,4- $\text{CH}_2\text{C}_6\text{H}_3$ analog of III. The 3,4-(MeO)₂- C_6H_3 analog of III gives the corresponding II, m. 151-2° (decompn.). 1-(3,4-Dimethoxyphenyl) analog of II, from I ($\text{Ar} = 3,4\text{-(EtO)}_2\text{C}_6\text{H}_3$), m. 140-2° (decompn.). 13 references

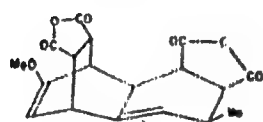
István Finály

CA

Addition of maleic anhydride to anethole. I. V. Bruckner and J. Kovacs (Univ. Sieged, Hung.). *J. Org. Chem.* 13, 641-61 (1948). — Rept. details of a preliminary report (C.A. 43, 3909) are given. Maleic anhydride (I) (50 g.), 300 g. anethole (II), and 5 g. PhNMe₂, stirred 6 hrs. in a bath at 80°, and the crystals filtered from the cooled mixt., washed until colorless with EtOAc, and vacuum-dried at 100°, gave 310 g. (44.8%) colorless homogeneous condensation product (III), m. 241° (decompn. began at 230°), after crystg. from EtOAc and vacuum-drying 10 hrs. at 100°. Concg. the filtrate from the reaction mixt., steam-distg. the viscous residue (383 g.) to yield 17 g. II, concg. the remaining aq. soln. to 500 ml., cooling, acidifying, washing the crystals with 200 ml. cold H₂O, and drying as before afforded 132 g. (16.5%) IV (total yield of condensation products 61%). Assuming *cis-cis* addn. to *trans*-II, 4 stereoisomers, i.e. 2 racemic pairs (V and VI being arbitrarily chosen members of each),



(IV)



(V)



(VI)

are possible. The following evidence indicates III has the structure VI, but the presence and location of the double bond not in the enol ether group was not established. VI (4 g.) on vacuum distn. gave 3.3 g. oily distillate from which I, m.p. (after recrystn. from EtOAc and then CCl₄) and mixed m.p. 54-5°, crystd., and then II, m. and mixed m.p. 21-2°, distd. with steam. VI (1 g.) and 0.35 g. II, heated 0.25 hr. at 230-5° until H₂S evolution ceased, the residue extd. with hot EtOAc, and the clarified (charcoal) soln. concd. to 3 ml. and cooled, gave, after 2 recrystns. from EtOAc, 3-methyl-7-methoxy-1,2-naphthalenedicarboxylic anhydride, yellow needles (greenish fluorescence in soln.), m. 214-17°, identical with that prepd. earlier (B., C.A. 20, 1224). The sparingly sol (1:100 in hot H₂O), crude, colorless, air-dried VII (6 g.), prepd. by shaking 0.9 g. powd. VI 5 min. with 10 ml. 5 N NaOH, acidifying the cooled mixt. with 2 N HCl, and washing the crystals with 80 ml. ice-cold H₂O, changed mostly to the readily sol. IV on crystn. from H₂O, only 1/2 reprec. again as a trihydrate (3 CO₂H, 1 lactone, and 1 OMe group), which on vacuum-drying at 100° formed anhyd. VII, m. 270-3° (decompn.). VII reverted to VI, m.p. (from EtOAc) and mixed m.p. 241° (decompn.), on boiling with 4 parts Ac₂O and dlgs. the cooled soln. with Et₂O. VI (0.9 g.), boiled 10 min. in 20 ml. 5 N NaOH, the mixt. acidified with 10 ml. 10 N HCl, clarified (charcoal), and cooled, gave a mixt. (6 g.) of VII and IV from which 20 ml. boiling H₂O extd. the more sol. (1:1.8) IV, leaving 1 g. VII; cooling produced 2.8 g. colorless prisms of the trihydrate, which dried as above to anhyd. IV.

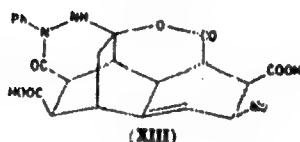
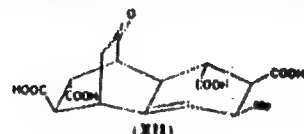
2 acids

(c. rev)

C-A

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from Ac_2O even after long boiling. With H_2NOH **XII** gave a regular oxime (4 CO_2H groups), m. $224-5^\circ$. The *di*(phenylimide) (no OH group), m. $280-5^\circ$ (decomp.). (colorless prisms from A-OH or PhNH_2), corresponding to **VIII** was prepd. either by slowly heating 3.6 g. **VI** with 8 ml. freshly-dist. aniline and washing the crystals with hot EtOAc , or from **VIII** (precip. from **IV**) and aniline. **IV** (8.7 g.) and 0.6 g. $\text{PhNHNH}_2 \cdot \text{HCl}$ boiled 5 min. in 12 ml. H_2O , afforded colorless needles of the *dihydroxydibasic* deriv. (**XIII**), m. 180° after crystg. from H_2O and



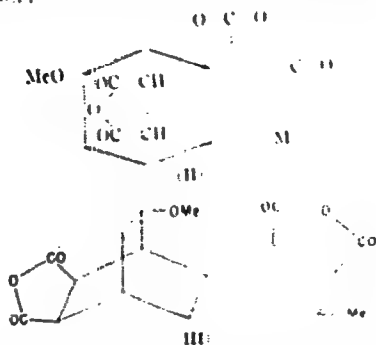
vacuum-drying at 100° , which could not be titrated sharply as a dibasic acid but, on treating 0.1 g. in 25 ml. dry MeOH with CH_3N_3 in MeOH , gave the *di-Me ester*, colorless needles from xylene, m. $295-300^\circ$ (decomp.). An aq. soln. of 2 g. **IV** and 2 g. H_2NOH in 5 ml. H_2O , heated (steam bath) 1 hr., gave, on air-drying the recrystd. (from H_2O) product, a *tetrahydrate* which, on vacuum-drying 10 hrs. at 100° or recrystg. from MeOH , furnished an anhyd. dibasic acid (**XIV**), m. $210-11^\circ$ (decomp.), having the empirical formula, $\text{C}_{11}\text{H}_{12}\text{NO}_8$, of a regular oxime. With boiling Ac_2O **XIV** gave neutral colorless prisms, $\text{C}_{11}\text{H}_{12}\text{NO}_8$, m. $270-2^\circ$ (decomp.), probably the *acetylated oxime* of **VIII**. The melt from **XIV**, treated with Me_2CO , gave a colorless *dibasic acid*, $\text{C}_{11}\text{H}_{12}\text{NO}_8$, m. $274-5^\circ$ (decomp.). With CH_3N_3 and Me_2SO , **XIV** gave colorless products, m. $200-8^\circ$ and 105° , resp., both of which contained more N than calcd. for a regular ester. Ultraviolet spectra are given for **IV**, **VII**, and **XII** in aq. soln. and for **XI** and the tetra-Me ester of **XII** in CHCl_3 soln. **XI**, **XII**, and the tetra-Me ester of **XII** show ketone bands that are absent in **IV** and **VII**.

I. Moyer Hunsberger

CA

Application of the diene synthesis to aromatic systems. V. Bruckner and Jozsef Konyacs. *Magyar Kém. Lapja* 4, 438 (1949). The discovery and development of the diene synthesis is summarized, then the possibility of application to aromatic ring systems emphasized. Expts. confirmed that styrene derivatives also behave in principle as conjugated dienes. One olefinic double bond of a conjugated diene is replaceable by a double bond of a mono-nuclear aromatic system. The transformation of anethole with maleic anhydride was studied. Besides the heteropolymetric product obtained by Hudson and Robinson (C. 1, 36, 1312), a well-cryst. substance (II) could be sepd., the mol. ratio anethole:maleic anhydride was 1:2 in this addn. product, for which was suggested the formula II. Detailed further investigations proved that II is quite right and that I has the configuration shown in

formula III. By the original method the yield of I was only 8%; the addn. of PhNMe₂ inhibited the heteropoly-



meric transformation so effectively that the yield of I was increased to 61% and I could easily be sepd. in pure form, m. 242°. Arguments are listed against the possibility of the structural formula proposed by Lora Canayo and co-workers (C. A. 43, 2670d). The initial mechanism of the diene synthetic transformation of styrene derivatives is briefly discussed.

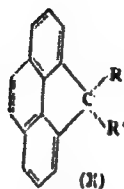
István Földi

C A

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... Addition of maleic anhydride to anethole. II, V. Brackman and J. Kovács (Univ. Szeged, Hung.). *J. Org. Chem.* 14, 55-70 (1949). cf. C.A. 44, 1024c. Although I resisted catalytic hydrogenation (Pt or Pd) at atm. pressure, the existence of the double bond not in the enol ether group of II and III (prepd. from I) was demonstrated by bromination and oxidation with H_2O_2 . This completed the proof of structure for I. II (3.64 g.) in 200 ml. 2% KOH, added to 6.3 g. Br in 60 ml. 10% KOH, the soln. filtered after 2 days, treated with Na_2SO_3 , acidified (pH 1-2) with 2 N HCl, and evapd. in vacuo to dryness; the combined solns. from boiling the residue twice with dry MeOH evapd. (reduced pressure), and the oily residue crystd. several times (once with charcoal) from H_2O , gave 1.6 g. partly colorless mono-Br deriv. of II, colorless needles, m. 180°, (1.4 g. of which in dry MeOH with CH_3N , gave the 4-Br deriv. (IV) of III, colorless needles, m. 217-8° (after recrystn. from MeOH and then EtOAc). Adding 26 ml. of 1% soln. of Br in dry MeOH to 4 g. II in 16 ml. dry MeOH, evapd. after the Br color disappeared (several min.), triturating the yellowish oil with 12 ml. H_2O , boiling the resulting oily crystals a few min. with 100 ml. H_2O , and concy. the filtered soln. to 80 ml. also gave 1.1 g.

gives 1-(2-cyanoethyl)-2,2,4-trimethyl-1,2-dihydrofluorenone, viscous oil, b.p. 185-94°, which is sapon. to the corresponding propionic acid (VIII), m. 144-5°. Treatment of 31 g. acid chloride of VIII in CS_2 with 50 g. $SnCl_4$ gives 1,1'-[2,2,4-trimethyl-6'-keto-1,2,3,3',4'-hexahydro-8,8'-binaphthyl]spiro, b.p. 188-91°, crystals from $CHCl_3$ -ligroin, m. 136-8°. Dropwise addn. of 345 g. $SnCl_4$ to 200 g. 8,8'-(9-fluorenylidene)dipropionyl chloride at 0°, stirring the mixt. 4 hrs., and refluxing it 16 hrs. give 1,1'-[6,6'-dihydro-1,2,3,4,1',3',3',4'-octahydro-8,8'-binaphthyl]spiro (IX), b.p. 180-5° (mol. still), crystals from $CHCl_3$ -ligroin, m. 207-8° (dioxime, m. 224-5°). The acid portion from this expt. (26.8 g.) was refluxed with 2% EtOH-HCl, giving Et 6-keto-1,2,3,4-tetrahydro-1-fluorenylpropionate, b.p. 189-93°, which, sapon., gives the free acid, m. 183-5° (oxime, m. 210-13°). Reduction of 13.7 g. IX in 200 cc. AcOH at 20° in the presence of PtO_2 16 hrs. gives 1,1'-[6,6'-dihydroxy-1,2,3,4,1',3',3',4'-octahydro-8,8'-binaphthyl]spiro, m. 200-1° (di-Ac deriv., prepd. with Ac_2O - CaH_2 12 hrs. at 20°, m. 150-3°, subliming at 150° in a high vacuum). 4,5-Methylene-phenanthrene (X, R = R' = H) (47.5 g.) with 30 g. $CH_2=CHCN$ gives the dinitrile (X, R = R' = $CH_2CH_2CH_2CN$) which, sapon., gives the dicarboxylic acid (X, R = R' = $CH_2CH_2CO_2H$); the latter, with $SOCl_2$ gives the acid chloride (XI) (X, R = R' = CH_2CH_2COCl).

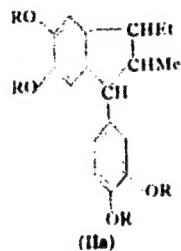


Dropwise addn. of 75 g. SnCl_4 to 47 g. **XI** in 200 cc. CS_2 and stirring the mixt. 72 hrs. at 20° give 1,1'-(4,4'-di-*tert*-7,7'-oxybis-1,2,3,6,1',2',3',6'-octahydro-8,8'-binaphthyl)spiro, b.p. 200° , crystals from AcOH -ligroin, m. $162-5^\circ$. Refining a mixt. (prepd. in the order given) of 12 g. amalgamated Zn filings, 7.5 cc. H_2O , 17.5 cc. concd. HCl , 10 cc. PhMe , 2 drops AcOH , and 1 g. **IX** (or **II**) 24 hrs. with 3 addns. of 5 cc. concd. HCl after each 6 hrs. gives 1,1'-(1,2,3,6,1',2',3',6'-octahydro-8,8'-binaphthyl)spiro (**XII**), colorless oil with bluish fluorescence, b.p. 130° , b.m. 140° . Attempts to dehydrogenate **XII** by heating 1 g. with 1 g. Pd -charcoal in 50 cc. abs. Me_2CO 8 hrs. at $240-30^\circ$ or 3.4 g. with 0.9 g. pord. S 3 hrs. at $210-230^\circ$ in a slight vacuum failed. Attempts to dehydrogenate **IX** with chloranil or by heating 2.75 g. with 1.0 g. Se 12 hrs. at $280-30^\circ$ also failed (cf. v. Braun and Rath, *C.A.* 22, 2748).
F. E. Brauns

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CA

The reaction of propenylphenol ether dibromides with sodium iodide. J. Kovacs (Univ. Szeged, Hung.). *J. Org. Chem.* 15, 16-18 (1950).--The reaction of 3,4-(RO)₂C₆H₃CHBrCHBrMe (I) with NaI is studied. Keeping 3.4 g. I (R = Me) in 15 cc. Me₂CO with 3 g. NaI in 50 cc. Me₂CO 24 hrs. at room temp., decolorizing the mixt. with NaHSO₃, dilg. it with H₂O, and extg. with ether give 0.4 g. diisoeugenol di-Me ether (II) (IIa, R = Me), needles, m. 99-100°. Treating 8 g. 3,4-



(RO)₂C₆H₃CH:CHMe (III) in 20 cc. CHCl₃ with 6.2 g. Br at 0° gives I (R = RO) (IV), plates, m. 116°. IV and NaI give 35.3% 1-(3,4-dialkoxyphenyl)-2-methyl-3-ethyl-5,6-dihydroxyindan (V) (IIa, R = Et), m. 101°. Satg. a soln. of 1 g. III in 5 cc. ether with HCl and keeping the mixt. overnight give V. Keeping V in abs. ether with an excess of Br overnight gives a mono-Br deriv., C₁₅H₁₃O₂Br, long needles, m. 114°. Treating 4.5 g. I (R = PhCH₂) (VI) 2 days with NaI in Me₂CO gives 0.5 g. IIa (R = PhCH₂) (VII), needles, m. 114-16°. In some cases 3,4-(PhCH₂O)₂C₆H₃CH:CHMe, needles, m. 70-1°, is obtained; with Br it gives VI, m. 120°. Hydrogenation of 0.08 g. VII in 50 cc. EtOH with Pd-charcoal 15 min. gives 1-(3,6-dihydroxyphenyl)-2-methyl-3-ethyl-5,6-dihydroxyindan (IIa, R = H), needles, m. 106°. Bromination of VII gives a mono-Br deriv., C₁₅H₁₃O₂Br, m. 141°. Refluxing 3 hrs. 4.5 g. 3,4-HO(RO)₂C₆H₃CH:CHMe in 25 cc. EtOH contg. 0.8 g. Na with 3.3 cc. PhCH₂Cl gives 5 g. 3,4-PhCH₂O(RO)₂C₆H₃CH:CHMe (VIII), long flat needles, m. 75°, dibromide (IX), m. 114°. Treating IX with NaI gives VIII, m. 75°. Treating 3,4-MeO(PhCH₂O)₂C₆H₃CHBrCHBrMe (X) with NaI gives isoeugenol benzyl ether, m. 54°, which with Br again gives X, m. 122°. 4-MeOC₆H₄CHBrCHBrMe and NaI give anethole, m. 21°. P. R. Brauns

6A 10

The structure of the anethole-maleic anhydride bis-adduct. Gyozo Bruckner, József Kármán, and Peter Huhn (Univ., Szeged, Hung.). *Magyar Kém. Folyóirat* 56, 73-4 (1950).—Further studies were made to support the structure previously proposed (C.A. 43, 2869i) for the bis-adduct (I) of anethole and maleic anhydride as opposed to the structure of Lora-Tamayo (C.A. 43, 2974c). When I was boiled with H₂O and glacial AcOH and the products were methylated, various compounds, including di-Me fumarate and cis-3-methyl-7-methoxy-1,2,3,4-tetrahydro-1,2-naphthalene-dicarboxylic acid (II) were identified in the mixt. obtained. The formation of both compounds is easily explained by the proposed structural formula but not by that of L.-T. Further support is offered by the fact that the anhydride of II did not react with maleic acid anhydride at 80° (the temp. at which I is formed) but only at 180° and gave a product, m. 260°, against 243° for the original I. István Fényi

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The reaction of the dibromides of styrene and its
derivatives with sodium iodide. Joan I. Kovacs (Univ.
Pittsburgh). *Magn. Res. Phys.* 10, 300-311 (1970).
cf. C.A. 44, 4416a. The general procedure for treating
dibromides with NaI was as follows: The dibromide and
NaI in abs. Me₂CO were kept at room temp. 1-2 days, the
soln. dild. with water, and the iodine absorbed by aq.
NaHSO₃ or Na₂S₂O₃. Dimeric isoeugenol Me ether [1-(3,4-
dimethoxyphenyl)-2-methyl-3-ethyl-5,6-dimethoxyindan],
m. 90-100°, was obtained in 0.4-g. yield, by treating 1.2 g.
1,4-(MeO)₂C₆H₃CHBrCHBrMe in 15 ml. abs. Me₂CO with
3 g. NaI in 30 ml. abs. Me₂CO, keeping 24 hrs. at room
temp., absorbing the free iodine, taking up the oily product in
ether, washing with water, drying, and recrystg. from
MeOH. 1-(3,4-dimethoxyphenyl)-1,2-dibromopropene, m.
116°, was obtained in 10-g. yield by adding 6.2 g. Br to 10
ml. dry CHCl₃ to 8 g. 3,4-(EtO)₂C₆H₃CH:CHMe (II) in 20
ml. dry CHCl₃ at -8°, filtering, and recrystg. from Me₂CO.
Dimeric I Et ether [1-(3,4-diethoxyphenyl)-2-methyl-3-

ethyl-5,6-diethoxyindan] (II), m. 90° (from EtOH), was
similarly obtained in 0.3-g. yield (33.3%). II was also
prepd. by aza. with HCl of 1 g. I in 5 ml. ether, removal of
the solvent by vacuum distn., and recrystn. from MeOH.
The Br deriv., m. 114°, mol. wt. 471.5, of I was obtained by
keeping an Et₂O soln. of II with excess Br overnight. Di-
meric 3,4-(PhCH₂O)₂C₆H₃CH:CHMe [1-(3,4-dibenzoyloxy-
phenyl)-2-methyl-3-ethyl-5,6-dibenzoyloxyindan], m. 114-
16° (from EtOH), mono-Br deriv., m. 141°, and diasarone
[1-(2,4,6-trimethoxy)-2-methyl-3-ethyl-4,6,7-trimethoxy-
indan], m. 108-9° (from MeOH), were also prepd. 3-
Benzoyloxy-4-ethoxy-1-propenylbenzene, m. 75°, was ob-
tained in 5.0-g. yield by adding to 0.6 g. Na in 25 ml. abs.
EtOH 4.5 g. 3,4-HO(EtO)₂C₆H₃CH:CHMe and 3.3 ml.
PhCH₂Cl, refluxing 3 hrs., and recrystg. from EtOH. 1-(3-
benzoyloxy-4-ethoxyphenyl)-1,2-dibromopropane m. 114°
(from ligroin). Isoeugenol benzyl ether, m. 58°, and
anethole, m. 31°, were also prepd. It was thus shown that
the dibromides of 3,4-dibenzoyloxy-, 3,4-diethoxy-, 2,4,6-
trimethoxy-, and 3,4-dimethoxy-*p*-propenylbenzene formed
dimeric compds. as well as the Br-free monomeric compds.
The dibromides of styrene, stilbene, cinnamyl alc., PhCH:
CHCH₂OMe, anethole, isosafrole, isoeugenol benzyl ether,
and cinnamic acid, however, yielded only Br-free mono-
meric compds. L. van Fland

KARADY, I.; KOVACS, B.; KOVACS, J.; SZERDAHELYI, M.; VAJDA, P.

Investigation on the isolation, identification and chemical determination of an organism-formed and hitherto unknown antihistaminic substance. Magy. biológ. Arch. 4 no.4:150-155 1951. (CML 21:4)

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